

REMARKS

Claims 1-6 and 8-33 are pending in the present application. Claims 1-6 and 8-25 stand rejected. In the above amendments, claims 1, 2, 5 and 6 have been amended with new claims 26-33 being added. Therefore, after entry of the above amendments, claims 1-6 and 8-25 will be pending in this application. The present application is now in condition for allowance, which prompt and favorable action is respectfully requested.

Rejection of Claims 1-6 and 8-25 Under 35 U.S.C. §102(e)

Claims 1-6 and 8-25 stand rejected under 35 U.S.C. §102(c) as being anticipated by Kushner *et al* (U.S. Patent No. 6,633,839).

Claim 1 of the present application, as amended, recites:

“A subscriber unit comprising:
a feature extraction module configured to extract a plurality of features of a speech signal, the plurality of features being used for voice recognition;
a voice activity detection module configured to detect voice activity within the speech signal and to provide an indication of detected voice activity, the feature extraction module and the voice activity detection module having different processing delays; and
a wireless transmitter coupled to the feature extraction module and the voice activity detection module and configured to transmit the indication of detected voice activity and the plurality of features corresponding to different portions of the speech signal over a wireless network to a voice recognition device in a distributed voice recognition system.”

Applicant submits that claim 1 is not anticipated by Kushner for at least the following reason.

First, Kushner does not disclose “the feature extraction module and the voice activity detection module having different processing delays,” as recited in claim 1. This feature is described on page 12, lines 24-29 of the present application. In contrast, Kushner describes each frame having 2 bits used to indicate whether a frame is non-speech, voiced, unvoiced, mixed-

voiced, etc. (See column 6, lines 36-38.) This suggests that the speech/non-speech indication as well as the data/features have the same processing delay and are sent in the same frame.

Second, Kushner does not disclose “a wireless transmitter ... configured to transmit the indication of detected voice activity and the plurality of features corresponding to different portions of the speech signal,” as recited in claim 1. This feature is described on page 15, lines 29-31 and is also shown in FIG. 8 of the present application, where j denotes the processing delay for the VAD information and k denotes the processing delay for the features. Kushner states “the vocoder-analyzer **58** operates on a frame size of approximately 20 ms, i.e., the parameters are transmitted once every 20 ms.” This suggests that vocoder-analyzer **58** operates on each frame of 20 ms, and both the speech/non-speech indication and the data/features correspond to that 20 ms frame. In contrast, for claim 1, the indication of detected voice activity may correspond to a portion of speech signal that is j time units earlier whereas the plurality of features may correspond to a portion of speech signal that is k time units earlier, where j and k are processing delays for voice activity detection and feature extraction, respectively.

For at least the above reasons, Applicant submits that claim 1 is not anticipated by Kushner. Claims 3 and 8-13 are dependent on claim 1 and are not anticipated by Kushner for at least the reason noted above for claim 1. These claims may recite additional features not disclosed by Kushner.

For example, claim 8 recites “a control module configured to receive from the voice recognition device ... at least one word or command estimated based on the indication of detected voice activity and the plurality of features.” Kushner does not describe server 26 sending back at least one word or command estimated from the indication of detected voice activity and the plurality of features to subscriber unit **22**.

Independent claims 2, 5 and 6 have each been amended to recite the features noted above for claim 1. Claims 4 and 14-19 are dependent on claim 2, and claims 20-25 are dependent on claim 5. These claims are not anticipated by Kushner for at least the reason noted above for claim 1.

Accordingly, the §102(c) rejection of claims 1-6 and 8-25 should be withdrawn.

New Claims 26-33

New claims 26-33 correspond to pending method claim 5 and the claims depending therefrom, and are drafted in the Beuregard claim format. Claims 26-33 are therefore allowable for the reasons set forth above. Approval and entry are respectfully requested.

CONCLUSION

In view of the foregoing, Applicants submit that the application is in condition for allowance. Should any issues remain unresolved, the Examiner is encouraged to telephone the undersigned at the number provided below.

The Commissioner is hereby authorized to charge any fees which may be due or credit any overpayment to deposit account no. 17-0026.

Respectfully submitted,

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